

IN THE MATTER OF THE APPLICATION  
OF SALT RIVER PROJECT OR THEIR  
ASSIGNEE (S) IN CONFORMANCE WITH  
THE REQUIREMENTS THE ARIZONA REVISED  
STATUTES 40-360.03 AND 40-360.06 FOR A  
CERTIFICATE OF ENVIRONMENTAL  
COMPATIBITLY AUTHORIZING THE  
CONSTRUCTION OF NATURAL GAS FIRED ,  
COMBINED CYCLE GENERATING  
FACILITIES AND ASSOCIATED INTRAPLANT  
TRANSMISSION LINES, SWITCHYARD IN  
GILBERT, ARIZONA LOCATED NEAR  
AND WEST OF THE INTERSECTION OF VAL  
VISTA ROAD AND WARNER ROAD



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ARIZONA CORPORATION COMMISSION  
DOCUMENT CONTROL

RESPONSE TO SECOND  
DATA REQUEST OF  
MICHAEL APERGIS  
AND A DATA REQUEST  
TO APPLICANT SRP

CASE. 105 DOCKET  
NUMBER

L000000B-00-0105

DOCKETED

OCT 20 2000

Michael Apergis responds to the second data request as follows:

DOCKETED BY	
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1. I am a member of the COST organization, and am President of the Neely Farms HOA, yet I am speaking on behalf of myself, a resident of Gilbert.
2. Not applicable
3. Not applicable
4. The arguments, why this plant does not fit environmentally with the area of Val Vista and Warner, the advertising by SRP in regards to how Gilbert is a major contributor to this power consumption, the Southeast Valley growth and the NEED for power, and how long has SRP known about it and why they did not react till recently.
5. The facts that I have researched have to do with my sense of why this does not belong, information I researched from the Economic Development Department/City of Gilbert, SRP documents that were handed out at SRP open houses or sent in the mail, SRP's advertisements, Articles written in the Gilbert Independent, information from SRP's Integrated Resource Plan Fiscal year 1997, Forecasts and Loads Resources form SRP, information gather from the Internet on specific corporation, New West Energy.

6. At this time, I can not say that I have any witnesses to call. If SRP produces the following witnesses it would be greatly appreciated:
  - A. David Slick  
SUBJECT: IRP REPORTING SPREADSHEET FY 98 AND FY 99.
  - B. Mark Bosnall  
SUBJECT: SRP LOAD AND FORCAST RESOURCES FY 1990 TO FY 1999  
SRP INTEGRATED RESOURCE PLAN FY 97
7. I do not have an attorney at this time.
8. The following items are what I plan to deraw my arguments from are listed below:
  - A. All materials that were either handed to me or mailed to me by SRP at open house or my home.
  - B. Advertisements and articles placed in The Gilbert Independent, By SRP, Mr. Long, Mr. Warren Love.
  - C. Information that I gathered from Greg Tilque at the Economic Development Department/City of Gilbert.
  - D. SRP Forecast and Load Resources FY 91 - FY 99(submitted)
  - E. Integrated Resource Plan Fiscal Year 1997.(submitted)
  - F. Internet information and incorporation Articles and officers of the New West Energy, Corp.(submitted, I still do not have the Articles of Incorporation but will have them soon, I will forward.)
  - G. Possibly photographs of the proposed site from peoples homes with in a mile.( I will forward if the pictures expose properly this time)

## FIRST DATA REQUEST TO SRP

Intervenor, Michael Apergis would like to submit this data request to SRP. I would like complete information when at all possible to the following requests. These responses should be delivered to Michael Apergis, or if time does not permit, I will gladly drive over and pick up any documents on my own time.

1. SRP's Integrated Resource Plans in detail for Fiscal year 1998 and Fiscal year 1999.
2. Copies of SRP's Annual Reports for 1999 and 2000.
3. Please provide a copy of any documents relating to or regarding OASIS Corporation.
4. Please provide a detailed explanation of the relationship between SRP and New West Energy.

DATED: OCTOBER 18, 2000.

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Michael Apergis

Original mailed October 18<sup>th</sup>, 2000.

Kenneth C. Sundlof, Esq.  
Jennings, Strouss & Salmon, PLC  
One Renaissance Square  
Two North Central Avenue  
Phoenix, AZ 85004

By \_\_\_\_\_



## Santan Expansion: Power to Grow On

### The Need is Now

SRP hasn't built a new generating plant since the 1970s—before the East Valley population boom. The Santan Expansion is an efficient, environmentally sound way to avoid future power shortages.

### New Technology Means Less Emissions

Upgrading Santan will allow SRP to use newer technology for better fuel efficiency and lower emissions. Even with more power output, *our total emissions will be 26% lower than the existing plant.*

### Stronger Tax Base

The expansion will boost Gilbert's tax base by \$100 million over the next 20 years. This will help

stabilize property tax rates and provide revenues for improving schools, parks and other community projects.

### Gilbert Gains

The Santan Expansion improves the visual impact by including new trees and landscaping. The project also includes road improvements, canal re-routing and a new riding trail.

### Get More Information

Visit our web site:  
**[www.santanfacts.org](http://www.santanfacts.org)** to  
get the whole story.

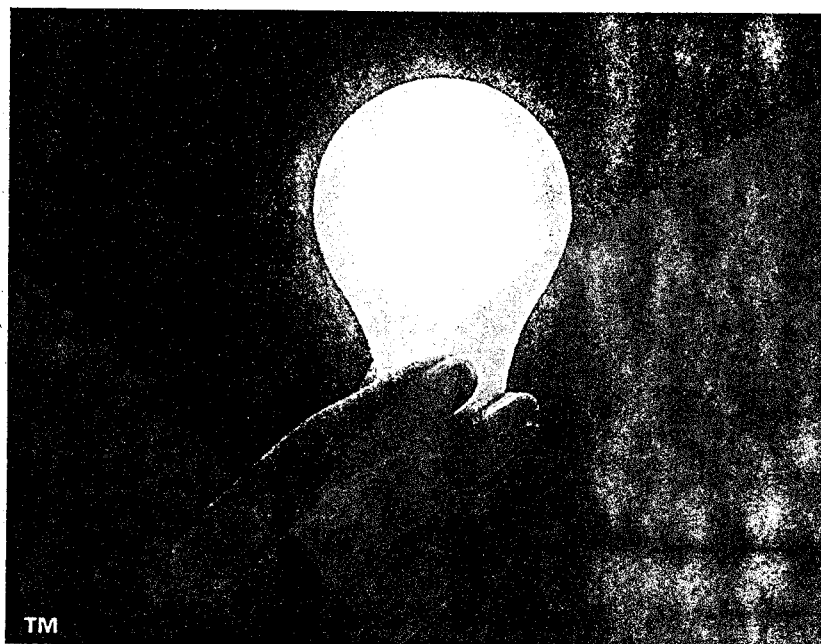
Call or write:

Janeen Rohovit  
PAB240, P.O. Box 52025  
Phoenix, AZ 85072-2025  
(602) 236-2679



Delivering More Than Power®

[www.santanfacts.org](http://www.santanfacts.org)



TM

**Santan Expansion Project:**

# ***A Good Idea for Gilbert***

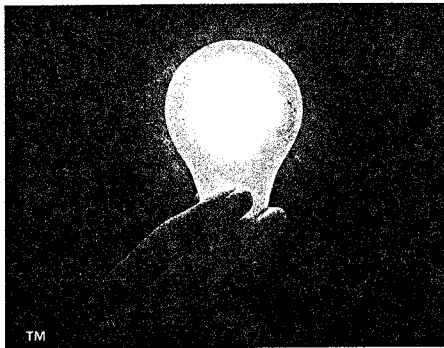
[www.santanfacts.org](http://www.santanfacts.org)

# Energy News



June 2000 No. 1

Useful information for the Gilbert community



## Get the facts!

- ◆ One-hundred percent of the power from the new Santan generating facility will be available to serve Gilbert electric customers. This project will help to meet growing energy needs.
- ◆ The new, state-of-the-art, clean-burning, natural gas generating facility will meet all air quality standards to protect public health. Through control or retirement of local emission sources, the Santan project will provide a net improvement to area air quality.
- ◆ SRP will pay an estimated **\$101 million** in new taxes in the Gilbert community over 21 years. Approximately **\$3 million** per year of this new tax revenue total will go to the Gilbert Unified School District.
- ◆ Enhancements to the Santan community, including road widening, landscaping and noise reduction, will ensure that the new generating facility is compatible with the surrounding community.

SRP wants you to know what's happening with the Santan Expansion Project. Get more facts about the project at [www.santanfacts.org](http://www.santanfacts.org), or call the 24-hour information line at **(602) 954-8156**.

To host a small-group meeting to learn more about the Santan Expansion Project, please call **Janeen Rohovit at (602) 236-2679**.

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## Power for progress

**M**ore people and more buildings create a need for more power. It's a simple equation.

Metropolitan Phoenix is one of the nation's fastest-growing urban areas. This growth has fueled our local economy and resulted in a boom of homes and businesses that need to be cooled and heated. much of the growth is occurring in Gilbert. That's why there is a need for an additional source of power in the East Valley.

During the past five years, the number of customers in SRP's electric service territory grew about 16%. In the past fiscal year alone, SRP welcomed more than 27,000 new customers to its service territory—a record one-year growth.

SRP's challenge and responsibility is to prevent the growing demand for electric power from exceeding our available resources. In the next 10 years, the greatest power usage in SRP territory is expected to occur in Gilbert, ✓ Tempe, Mesa, Chandler and the Ahwatukee/East Phoenix area ✓

The need for additional generation isn't a local phenomenon—the nation as a whole is feeling the weight of overload on power grids. United States Department of Energy Chief Bill Richardson recently predicted that there will be an electricity supply shortage within the next few years.

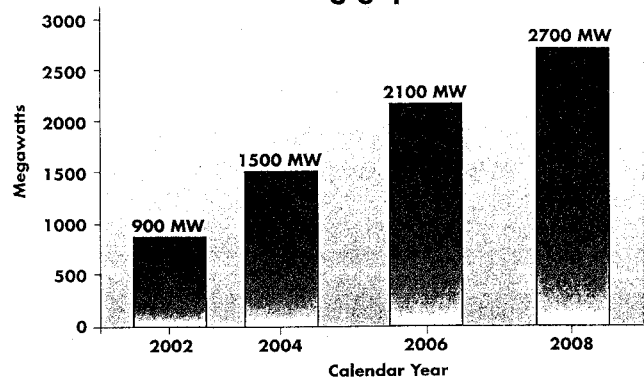
It's a very real problem and utilities and communities need to work together to find the best solution.

To meet the need for additional power, there are only two choices:

- ◆ Bring power in from a distant location via transmission lines. This is an expensive option and requires locating additional power lines through existing neighborhoods.
- ◆ Generate additional power at an existing facility located in the area of greatest need—the East Valley. We believe this is the most cost-efficient and prudent solution to meet the future power needs of the East Valley.

That's why SRP has begun a process to obtain permits to build an 825-megawatt generating facility at its existing Santan Generating Station in Gilbert. All of the power from this new generating facility will be available to serve the energy needs of local customers. We're working with the community to provide electricity with as little impact on the surrounding area as possible.

### Growing gap



The gap between SRP generating resources and expected energy needs may reach 2,700 megawatts (equivalent to nearly 50% of SRP's current generating sources).



# **Proposed Expansion Of Existing Santan Generating Station**

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## **GENERAL INFORMATION**

- ◆ **Electrical output 825 megawatts  
(200,000 residences)**
- ◆ **To be located on the west side of the  
Santan Generating Station**
- ◆ **Primary equipment proposed for  
installation will include the following:**
  - **Three combined cycle combustion  
systems**
  - **Support equipment (cooling tower,  
auxiliary boiler, emergency generator,  
emergency fire pump)**
  - **Primary equipment to be fueled with  
natural gas only (cleanest burning  
fossil fuel)**



◆ **SHANNON R. MALONEY, Director  
Sales**

Shannon Maloney brings a wealth of energy marketing and sales experience to New West Energy. Prior to joining New West Energy, Shannon managed the Competitive Marketing group for Salt River Project.

Before taking on that role for SRP, Shannon led the marketing and sales efforts for Montana Power Trading and Marketing in California's newly deregulated market. She holds a bachelor's of science degree in marketing from the University of Montana and a bachelor's of arts degree in communications from Montana State University.

◆ **MICHELE P. NEGLEY, Director  
Energy Services Development &  
Delivery**

Michele Negley brings nearly two decades of electric utility experience to New West Energy. She's held numerous management positions at Salt River Project, including heading up the Power Quality and Distribution Area Marketing departments.

Michele holds a bachelor's of science degree in electrical engineering from Arizona State University and is registered as a professional electrical engineer (P.E.) She also is Certified Energy Manager (CEM).

◆ **NANCY S. LODER, Director  
Operations and Administration**

Nancy Loder has more than 25 years of experience in finance and control, business processes, contracting and regulatory affairs in the energy industry. Prior to joining New West Energy, Nancy held a variety of management positions within ARCO Pipe Line Company and ARCO Corporate, including Business Control Manager, Contract Administration and Project Controls Manager, and Land, Right-of-Way and Drafting Manager.

Nancy holds a bachelor's degree from California State University, Los Angeles, and a master's degree in business administration from Pepperdine University.

◆ **CAROL A. POORE, Director  
Marketing Communication**

Carol Poore transitioned from Salt River Project to New West Energy in 1997. Her utility experience includes strategic planning, market research and competitive intelligence analysis. She also has extensive strategic communication consulting and management experience and serves on a number of professional and community service boards.

Carol holds a bachelor's of science degree in broadcasting and a master's of business administration, both from Arizona State University.

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**NEW WEST ENERGY**

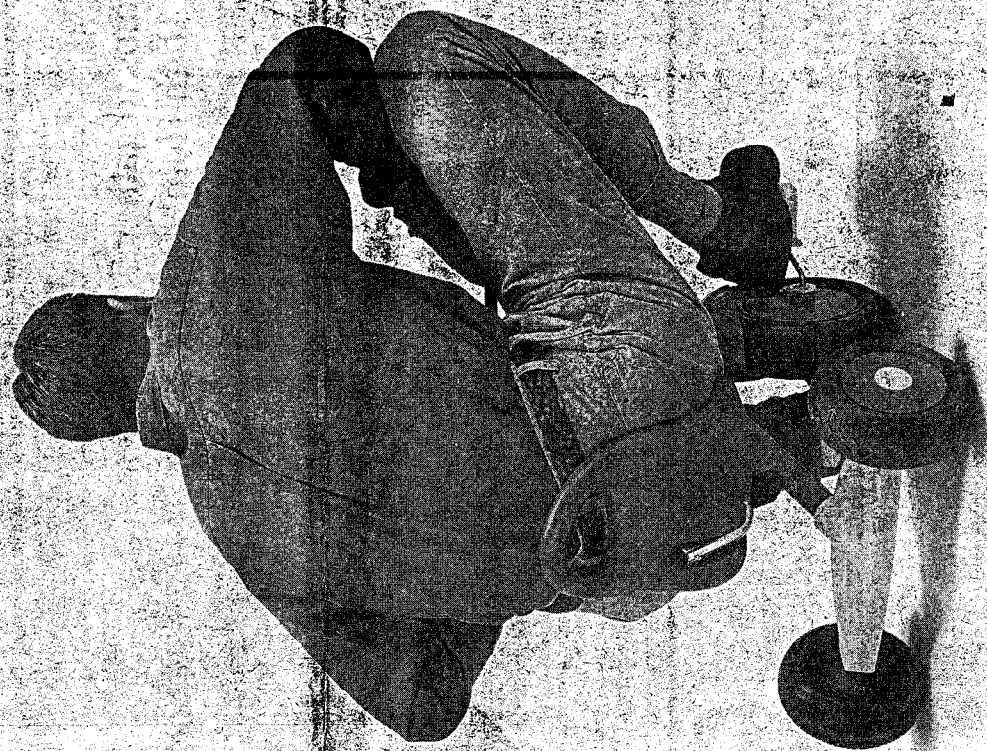
*Simply, the best energy value.*

New West Energy provides electricity and electricity services to business and residential customers in Arizona and California.

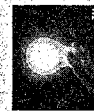
New West Energy was the first energy service provider (ESP) approved by all three California investor-owned utilities to service customers in their respective territories. We since have emerged to be among the top four ESPs in California, the nation's first fully deregulated state.

New West Energy provides 780 megawatts of power to more than 2,400 residential and business customers at nearly 9,000 locations from San Diego to San Francisco.

We are maintaining our strong customer portfolio by renewing service contracts and expanding our reach by introducing more consumers to the advantages of customer choice.



## As a community grows, so must its power source.



There are some things you shouldn't have to worry about — like running out of electricity. The fact is, Gilbert is one of the fastest-growing areas in the state. A growing community needs electricity. With the Santan Expansion Project, Gilbert and the East Valley will have a clean and efficient energy source for years to come.

Which means you won't have to wonder if it's there when you need it. And since the expansion of the plant will allow it to produce electricity more efficiently, emissions will actually be reduced. In addition, SRP will pay over \$100 million in new taxes during the next twenty years to help fund Gilbert public schools, parks and other community projects. Growing with you — it's just another way we deliver more than power. For clear and accurate information on the Santan Expansion Project we encourage you to visit [www.santantfactors.org](http://www.santantfactors.org) or call us at (602) 936-2679 to answer any questions.

Apn

**TABLE 4**  
**FY97-FY06 SRP LOAD & RESOURCE FORECAST**  
**PEAK DAY IN JANUARY**

Demand Components	(1)	FY97 1997	FY98 1998	FY99 1999	FY00 2000	FY01 2001	FY02 2002	FY03 2003	FY04 2004	FY05 2005	FY06 2006
SRP System Peak Forecast		3152	3255	3353	3450	3549	3649	3749	3852	3962	4068
Other Firm Loads and Sales		161	34	37	40	42	47	48	48	49	50
APS Territorial Sale		242	251	256	262	267	273	279	285	291	297
APS Contingent Sale		62	62	62	62	62	62	62	62	62	62
Diversity Exchange Sale		0	0	0	100	200	200	300	300	400	400
Total Demand		3617	3602	3708	3914	4120	4231	4438	4547	4764	4877
Demand Side Management	(2)	142	142	142	142	142	142	142	142	142	142
Reserve Requirements											
16% Reserves: FY97-FY01, 12%: FY02-FY06		524	522	539	556	573	443	456	469	483	496
Total Supply Side Requirement		4141	4124	4247	4470	4693	4674	4894	5016	5247	5373
Supply Side Components		FY97 1997	FY98 1998	FY99 1999	FY00 2000	FY01 2001	FY02 2002	FY03 2003	FY04 2004	FY05 2005	FY06 2006
Available Existing Resources		4010	4010	4010	4010	4010	4010	4010	4010	4010	4010
Firm Purchases		272	272	272	272	272	272	272	272	272	272
Contingent Purchases		726	726	726	726	726	726	726	726	726	726
Total Existing Resources		5008	5008	5008	5008	5008	5008	5008	5008	5008	5008
Resource Additions											
Annual Summer-Only Firm Purchase											
Diversity Exchange Purchase											
Fuel Cell Early Production Unit					2	2	2	2	2	2	2
Existing System Improvements										75	75
Capacity "Options"											
Gas-Fired Resources											
Additional Firm Purchases									6	162	288
Total Resource Additions		0	0	0	2	2	2	2	8	239	365
Total Supply Side Resources		5008	5008	5008	5010	5010	5010	5010	5016	5247	5373
Reserve Summary		FY97 1997	FY98 1998	FY99 1999	FY00 2000	FY01 2001	FY02 2002	FY03 2003	FY04 2004	FY05 2005	FY06 2006
Planned Reserves (MW)		1391	1406	1300	1096	890	779	572	469	483	496
Planned Reserves (%)		42.5	43.1	38.6	31.6	24.9	21.1	15.1	12.0	12.0	12.0
Over/Under (MW)	(3)	367	884	761	540	317	336	116	0	0	0

**TABLE 3**  
**FY97-FY06 SRP LOAD & RESOURCE FORECAST**  
**PEAK DAY IN AUGUST**

Demand Components	(1)	FY97 1996	FY98 1997	FY99 1998	FY00 1999	FY01 2000	FY02 2001	FY03 2002	FY04 2003	FY05 2004	FY06 2005
SRP System Peak Forecast		3961	4075	4184	4291	4400	4512	4623	4738	4861	4976
Other Firm Loads and Sales		211	114	84	102	78	108	112	114	116	118
APS Territorial Sale		242	251	256	262	267	273	279	285	291	297
APS Contingent Sale		62	62	62	62	62	62	62	62	62	62
Diversity Exchange Sale		0	0	0	0	0	0	0	0	0	0
Total Demand		4476	4502	4586	4717	4807	4955	5076	5199	5330	5453
Demand Side Management	(2)	142	142	142	142	142	142	142	142	142	142
Reserve Requirements											
16% Reserves: FY97-FY01, 12%: FY02-FY06		649	653	666	687	702	544	558	573	589	604
Total Supply Side Requirement		5125	5155	5252	5404	5509	5499	5634	5772	5919	6057
Supply Side Components		FY97 1996	FY98 1997	FY99 1998	FY00 1999	FY01 2000	FY02 2001	FY03 2002	FY04 2003	FY05 2004	FY06 2005
Available Existing Resources		4018	4018	4018	4018	4018	4018	4018	4018	4018	4018
Firm Purchases		338	338	338	338	338	338	338	338	338	338
Contingent Purchases		814	817	817	817	817	817	817	817	817	817
Total Existing Resources		5170	5173	5173	5173	5173	5173	5173	5173	5173	5173
Resource Additions											
Annual Summer-Only Firm Purchase	100	100	100	100	100	100	100	100	100	100	100
Diversity Exchange Purchase					100	200	200	300	300	400	400
Fuel Cell Early Production Unit					2	2	2	2	2	2	2
Existing System Improvements										75	75
Capacity "Options"									100	100	200
Gas-Fired Resources											
Additional Firm Purchases					29	34	24	60	98	69	107
Total Resource Additions		100	100	100	231	336	326	462	600	746	884
Total Supply Side Resources		5270	5273	5273	5404	5509	5499	5635	5773	5919	6057
Reserve Summary		FY97 1996	FY98 1997	FY99 1998	FY00 1999	FY01 2000	FY02 2001	FY03 2002	FY04 2003	FY05 2004	FY06 2005
Planned Reserves (MW)		794	771	687	687	702	544	559	574	589	604
Planned Reserves (%)		19.6	18.9	16.5	16.0	16.0	12.0	12.0	12.0	12.0	12.0
Over/Under (MW)	(3)	145	118	20	0	0	0	0	0	0	0

**Notes:**

- (1) The SRP Fiscal Year is May 1 - April 30. The term FY97 means fiscal year ending April 30, 1997.
- (2) DSM is included within the SRP System Peak Forecast.
- (3) Capacity that is Over/Under SRP's installed Reserve Requirement.



## Alternative/Renewable Resources

The term "alternative/renewable" refers to those resource choices that represent non-conventional uses of conventional fuels, or resource options that rely on renewable fuel sources. SRP includes the following technologies in the alternative/renewable resource category: fuel cells, solar thermal, photovoltaics, compressed air energy storage, batteries, wind, geothermal, biomass and the various forms of municipal waste.

SRP is continuing its work with the Fuel Cell Commercialization Group in the hope of bringing the 2 MW molten carbonate fuel cell resource that is included within the FY97 Resource Plan to commercial operation on SRP's system. SRP hopes to take advantage of the technology's modular construction in deploying this efficient, environmentally attractive resource to meet geographically specific customer needs throughout SRP's retail service territory.

Despite the advantages that alternative/renewable resource alternatives offer, consistent with the observations of others, SRP has found that the costs of today's alternative/renewable choices are well above comparable costs for conventional gas-fired

technologies. However, SRP believes that prospects for cost-saving technological developments and breakthroughs among alternative/renewable technologies are greater than similar hopes for traditional, fossil-fired alternatives. Therefore, SRP remains optimistic about the outlook for these resource choices in future resource plan developments.

## Environmental Effects

SRP believes that the selected elements of its FY97 Resource Plan serve to help minimize the potential adverse environmental consequences of meeting increasing retail customer demand for electricity. Although SRP's median load forecast calls for an additional 1,000 MW of needed resource capability over the next 10 years, the FY97 Resource Plan does not include any new power plant construction. SRP believes that the potential impacts of new power plant construction and operation on natural resources are minimized by a future resource portfolio that is focused on the acquisition of existing summer season resource capability currently held by others, lower reserve requirements, and enhancements that will improve the efficiency of some existing facilities.

# THE FY97 RESOURCE PLAN

SRP believes that current suppliers of electricity who hope to survive in the emerging, low price, competitive marketplace of the future will need to achieve a much improved utilization of existing assets and become proficient at acquiring new, low cost sources of power. Based on this thinking, SRP embraced the following principles in adopting a specific new resource plan:

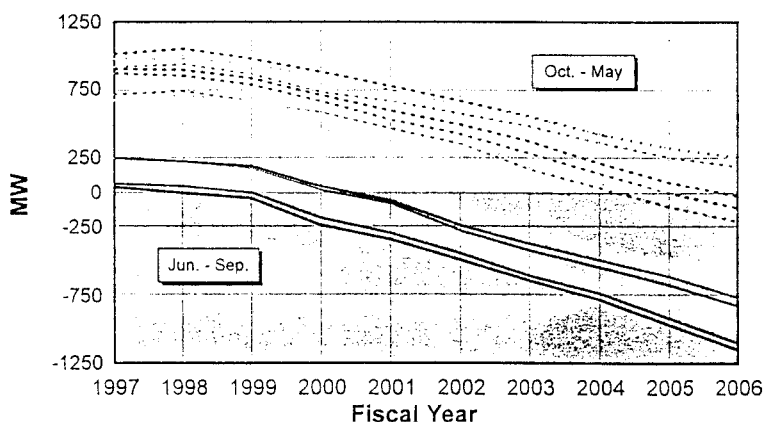
- ▶ Minimize capital investment in future resources
- ▶ Maximize flexibility in future resource acquisitions
- ▶ Plan to accept more operational risk.

The FY97 Resource Plan is oriented to meet currently projected median forecast requirements of those retail customers that presently reside within, plus those that are expected to migrate into, the currently defined SRP electric service territory. As noted within the discussion of *How SRP Retail Customers Use Electricity*, this estimate indicates that SRP will need approximately 1,000 MW of additional summer season resource capability over the ten year forecast horizon.

SRP's future needs vary dramatically on a month-to-month basis.

## Projected Excess Capacity With No Future Resource Additions

*FY97 Load Forecast & 16% Reserve Criteria*



## RESOURCE PLAN ANALYSIS FINDINGS

Summarizing the results from the more than 5,000 combinations of resource decisions and uncertain future conditions studied in this analysis was challenging. To simplify the presentation, the results below are organized in a manner similar to the framework of the overall resource planning process. The relative merits of each of the five resource decisions are summarized and presented graphically for both decision tests, Total Resource Cost and Funds Available. Results are presented for all combinations of retail business conditions and the three other uncertain conditions that were studied.

### Lower Reserve Margins are More Economic

The graph on the next page illustrates that under almost all combinations of retail business conditions and other uncertain conditions, SRP will derive significant benefit from decreasing the reserve criteria.

The four bars on the left side of the graph are the results for the Total Resource Cost test. Each bar represents the range of results for 1,296 endpoints. The result for each endpoint is the difference between the Total Resource Cost for a 14 percent reserve margin compared to the Total Resource Cost for a

16 percent reserve margin. The top of each bar represents the highest "savings," as measured by Total Resource Cost, for that retail load growth scenario under all retail competition conditions, all resource decisions, and all other uncertain conditions. Similarly, the bottom of each bar represents the lowest savings for that load growth scenario under all other conditions. The solid dark line is the average savings, based on Total Resource Cost, across all load growth scenarios and all other uncertain conditions.

There are a very few combinations of conditions where there would be no savings. An example occurs when SRP continues the T&C sale to APS and purchases to meet future electric needs, when the market price of electricity is low. However, in the vast majority of combinations of future conditions, SRP would derive savings from reducing its installed reserve margin from 16 percent to 14 percent. Across all load growth scenarios and all other uncertain conditions, the savings to SRP would average \$17 Million (Net Present Value for the period 1996 to 2005).



# RESOURCE PLAN ANALYSIS FRAMEWORK

Against a backdrop of twelve distinct retail business outlooks, SRP's resource planning process examined the relative merits of five resource plan decisions and three uncertain future conditions during the study time frame FY96-FY05. As a result, more than 5,000 unique combinations of decisions and uncertain conditions were examined through this analysis. An overview of the decision analysis structure used in developing the FY97 Resource Plan is illustrated below.

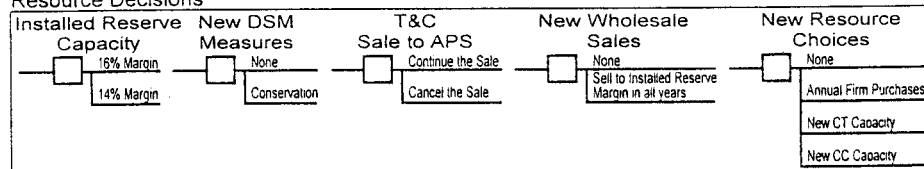
The organization of this analysis includes three segments. First, retail business conditions were developed to portray a range of unique futures for SRP's native service territory. Then, various combinations of distinct, but inter-related, resource decisions were examined as SRP's means for meeting customers' needs under the various retail business conditions. Finally, the relative effectiveness of these decisions was examined under other uncertain conditions.

## FY97 Resource Plan Analysis

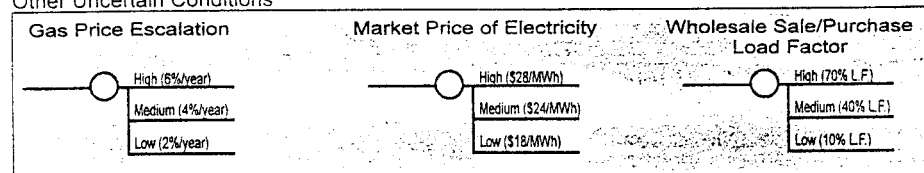
### Retail Business Conditions



### Resource Decisions



### Other Uncertain Conditions



SRP owns and operates three power plant sites within the Maricopa County non-attainment area: Agua Fria (west Phoenix), Kyrene (Tempe) and Santan (Gilbert). While it is generally believed that the vast majority of air pollution problems in the greater Phoenix metropolitan area result from automobile emissions, SRP is careful to ensure that its power plant facilities operate within applicable environmental standards.

As a direct result of concerns regarding non-attainment area regulations, SRP was careful in its consideration of improvements to existing Valley facilities in the resource plan development process. Although none were included in the resultant FY97 Resource Plan, SRP's aging facilities in the Phoenix metropolitan area are becoming increasingly attractive candidates for upgrades or refurbishments that are both economically attractive and environmentally acceptable.

## Glen Canyon Environmental Impact Statement

Beginning in the late 1970s, the federal government's management of Glen Canyon dam was questioned by a number of non-electric utility groups, primarily representing environmental and recreational interests. As a result of this, the development of the Glen Canyon Environmental Impact Statement was initiated by the Department of the Interior in 1982. The purpose of the GCEIS was to analyze all impacts, direct and indirect, of the operation of Glen Canyon dam on the human environment, including economic, social, cultural, natural and physical environmental impacts in the Grand Canyon. Participating stakeholders included numerous government agencies, environmental groups, recreational parties, Native American representatives, fish and wildlife interests, and electric utility industry concerns. The final GCEIS report was published in March of 1995.

the station's 40-year life. For this reason, the availability of Palo Verde continues to be very important to both SRP and its customers.

### Upgrades and Refurbishments of Existing Facilities

With the exception of Palo Verde Nuclear Generating Station, every existing SRP generating facility will be at least 20 years old, and some, more than 40 years old by the year 2001. Despite this aging population of units, SRP currently does not plan for the retirement of any power plant facilities during the 10-year planning horizon. Many of these plants, especially the intermediate and peaking facilities, have not been needed to provide electricity as much as originally projected. In a sense, SRP has a number of "old cars" in the garage that have not accumulated very much mileage. Furthermore, SRP has taken very good care of its old facilities through a deliberate, vigorous maintenance program that exceeds industry standards and has helped keep SRP's power plants in mint condition.

SRP's gas-fired peaking units built in the 1950s offer opportunities for upgrades and refurbishments. Although still reliable generating resources, technological

improvements could increase operating capacity or improve efficiency. Upgrading an existing facility can be a more cost effective source of additional capacity than other resource additions. SRP has included upgrades at existing facilities in the latter part of the 10-year planning horizon as an element of this resource plan.

### Transmission and Distribution Infrastructure

SRP's extensive system of transmission, subtransmission, and distribution facilities is a key element in providing electric service to customers. Transmission refers to the 500, 230, and 115 kV system that is designed to carry electricity from remote SRP resources to the Valley. Subtransmission refers to the system that moves electricity to neighborhood substations. Distribution refers to the lower voltage system that is used to deliver electricity locally. SRP owns, in whole or in part:

- 1,000 circuit miles of 500 kV lines
- 300 circuit miles of 230 kV lines
- 250 circuit miles of 115 kV lines
- 700 circuit miles of 69 kV lines
- 24,600 circuit miles of 12 kV lines

## HOW SRP RETAIL CUSTOMERS USE ELECTRICITY

Electricity is an instantaneous commodity.

Unlike other forms of energy, such as the gasoline for cars or propane for barbecue grills, electricity cannot be stored until needed. When any SRP customer turns on a light switch, starts a microwave oven, or starts a pool pump, SRP's system for supplying electricity must respond immediately to meet that customer's demand. Thousands of SRP customers make decisions to either use, or stop using, electricity during every minute of every day. Predicting how much electricity customers will use, and when they will use it, today and in the future is a challenge.

Most of us take this instantaneous commodity for granted. Electricity is not something that we can readily see, touch, smell, or hear, so that's easy to do. In fact, like other aspects of life that we come to take for granted, electricity seems to be most noticed when it's not there. This is particularly true for SRP customers when, for example, monsoon storms interrupt

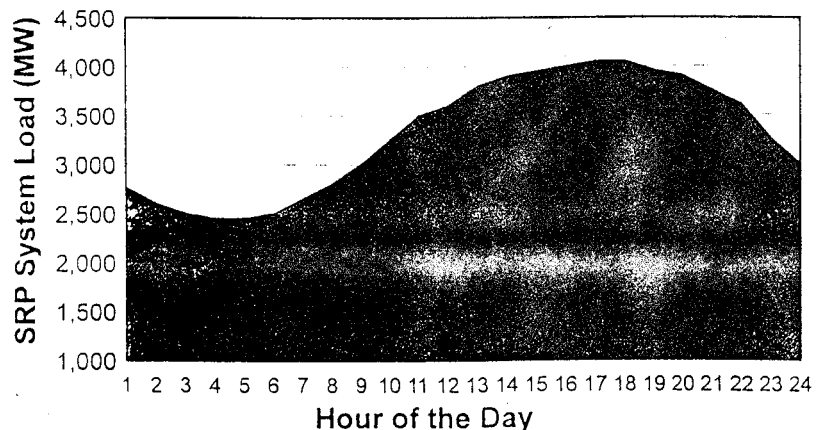
electric service on a hot summer day. In today's society, highly reliable electric service, under all conditions, is a standard expectation.

The amount of electricity that SRP's customers use at any moment is referred to as "load" or "demand." The sum of all SRP customers' decisions to use or not use electricity at any moment is called the Total System Load or Total System Demand. This Total System Load usually is measured in units of millions of watts, or megawatts (MW). As a result of customers' decisions during 1995, SRP supplied more than 1,200 MW of electrical demand during every moment of the year.

Like other sunbelt utilities, SRP is a "summer peaking" utility. This means that each year, demand for SRP electricity is greatest during Arizona's hot summer months. Central air conditioning, a fixture in our

**August 9, 1995, 5 p.m.**

*Actual Peak = 4,070 MW*



## SRP'S RESOURCE PLANNING OBJECTIVES

In the electric utility industry, the term "Integrated Resource Planning" (IRP) has referred to the formal process of planning for customers' electric service demand and energy requirements in future years.

Decisions made within such processes have had far-reaching impacts on electric utilities, customers and society at large. The purpose of this document is to present a clear and concise projection of the resource needs of SRP over the next ten years and a strategy for meeting those needs in an evolving utility environment. SRP's FY97 Resource Plan has been developed and submitted in compliance with the requirements of the Western Area Power Administration's Energy Planning and Management Program and in voluntary compliance with the planning and reporting requirements of the Arizona Corporation Commission.

As the electric utility industry moves from its present regulated, defined service territory roots to the deregulated, open access, competitive marketplace of the future, SRP believes that formal IRP processes will change. While electric service providers in different future utility business segments will continue to plan to meet customers' needs, decision

making is likely to become more rapid and less formal. SRP's current resource planning process attempts to strike an effective balance between multiple, and often competing, objectives. No single plan can meet every objective equally well. SRP examines many alternative future plans in order to find a plan that best meets a combination of the following resource planning objectives.

### **Ensure Adequate and Reliable Service to Electric Customers**

SRP is committed to serving the growing electric needs of the customers in its currently-defined service territory. To meet these projected future needs, a portfolio of resource options, including future supply-side alternatives and demand-side management (DSM) programs, was considered. SRP is interested in the efficient utilization of electricity on both sides of the meter.

The final, selected combination of resources must be capable of meeting projected future customer demand requirements, and also must provide the reserve capacity and energy necessary to provide reliable electric service during equipment outages, severe weather conditions, sudden unexpected surges in load, and changing future marketplace conditions.

# SRP LOAD AND RESOURCE FORECAST PEAK DAY IN AUGUST

December 12, 1996

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## INTERNAL DISTRIBUTION ONLY Summary of Existing Resources

Type of Plant/Site/Units	FY98 1997	FY99 1998	FY00 1999	FY01 2000	FY02 2001	FY03 2002	FY04 2003	FY05 2004	FY06 2005	FY07 2006
<b>Hydro</b>										
Roosevelt	36	36	36	36	36	36	36	36	36	36
Horse Mesa 1-4	128	128	128	128	128	128	128	128	128	128
Mormon Flat 1-2	58	58	58	58	58	58	58	58	58	58
Stewart Mtn	13	13	13	13	13	13	13	13	13	13
Crosscut	3	3	3	3	3	3	3	3	3	3
South Con	1	1	1	1	1	1	1	1	1	1
<b>Gas/Oil Fired Steam</b>										
Agua Fria 1-3	407	407	407	407	407	407	407	407	407	407
Kyrene 1-2	106	106	106	106	106	106	106	106	106	106
<b>Combustion Turbines</b>										
Agua Fria 4-6	212	212	212	212	212	212	212	212	212	212
Kyrene 4-6	158	158	158	158	158	158	158	158	158	158
<b>Combined Cycle</b>										
Santan 1-4	307	307	307	307	307	307	307	307	307	307
<b>Coal Fired Steam</b>										
Four Corners 4-5	148	148	148	148	148	148	148	148	148	148
Mohave 1-2	140	140	140	140	140	140	140	140	140	140
Hayden 2	131	131	131	128	128	128	128	128	128	128
Navajo 1-3	485	492	488	488	488	488	488	488	488	488
Coronado 1	365	365	365	365	365	365	365	365	365	365
Coronado 2	350	350	350	350	350	350	350	350	350	350
Craig 1-2	248	248	248	248	248	248	248	248	248	248
<b>Nuclear</b>										
Palo Verde 1	218	218	218	218	218	218	218	218	218	218
Palo Verde 2	218	216	214	214	212	210	210	218	218	218
Palo Verde 3	218	218	218	218	218	218	218	218	218	218
<b>Total Existing Resources</b>	<b>3950</b>	<b>3955</b>	<b>3949</b>	<b>3946</b>	<b>3944</b>	<b>3942</b>	<b>3942</b>	<b>3950</b>	<b>3950</b>	<b>3950</b>
<b>Expected Capacity on Maintenance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Available Existing Resources</b>	<b>3950</b>	<b>3955</b>	<b>3949</b>	<b>3946</b>	<b>3944</b>	<b>3942</b>	<b>3942</b>	<b>3950</b>	<b>3950</b>	<b>3950</b>

### Notes:

- (1) The SRP Fiscal Year is May 1 - April 30. The term FY98 means fiscal year ending April 30, 1998.
- (2) DSM is included within the SRP System Peak Forecast.
- (3) Represents portion of output that occurs coincident with SRP's peak.
- (4) Capacity that is Over/Under SRP's installed Reserve Requirement.

DEC96LR.XLS

# SRP LOAD AND RESOURCE FORECAST PEAK DAY IN AUGUST

December 12, 1996

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INTERNAL DISTRIBUTION ONLY	(1)	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07
Demand Components		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
SRP System Peak Forecast		4191	4322	4428	4535	4634	4741	4845	4961	5066	5182
Other Firm Loads and Sales		271	84	88	106	106	111	112	114	116	73
APS Territorial Sale		230	235	238	245	251	257	263	270	276	281
APS Contingent Sale		62	62	62	62	62	62	62	62	62	62
Diversity Exchange Sale		0	0	0	0	0	0	0	0	0	0
Total Demand		4754	4703	4816	4948	5053	5171	5282	5407	5520	5598

Demand Side Management (2)		145	145	145	145	145	145	145	145	145	145
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## Reserve Requirements

16% Reserves: FY98-FY01, 12%: FY02-FY07		693	685	703	724	556	570	583	598	612	621
Total Supply Side Requirement		5447	5388	5519	5672	5609	5741	5865	6005	6132	6219

	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07
Supply Side Components	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Available Existing Resources	3950	3955	3949	3946	3944	3942	3942	3950	3950	3950
Long Term Firm Purchases	338	338	338	338	338	338	338	338	338	338
Contingent Purchases	813	820	816	816	816	816	816	816	816	816
Total Existing Resources	5101	5113	5104	5101	5099	5097	5097	5105	5105	5105

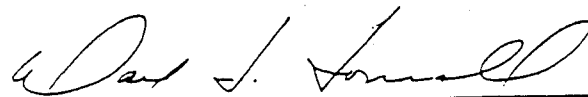
## Resource Additions

Short Term Firm Purchases	500	300	200	200	200	200	200	200	200	200
Capacity "Options"			200	200	200	200	200	300	300	300
Diversity Exchange Purchase				100	100	200	200	200	200	200
Fuel Cell Early Production Unit				2	2	2	2	2	2	2
Distributed Generation		3	8	9	11	13	15	17	22	24
Renewables/Solar (3)			1	3	6	15	16	16	16	17
Existing System Improvements									75	75
Additional Firm Purchases			6	58		14	136	166	212	297
Total Resource Additions	500	303	415	572	519	644	769	901	1027	1115

Total Supply Side Resources	5601	5416	5519	5673	5618	5741	5865	6006	6132	6219
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	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07
Reserve Summary	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Planned Reserves (MW)	847	713	703	725	565	570	583	599	612	621
Planned Reserves (%)	19.6	16.6	16.0	16.0	12.2	12.0	12.0	12.0	12.0	12.0
Over/Under (MW) (4)	154	28	0	0	9	0	0	0	0	0

Approved



Mark B. Bonsall

Associate General Manager of Financial, Information and Planning Services



## SALT RIVER PROJECT

November 1, 1991

## FORECAST OF LOADS &amp; RESOURCES

Demand Components		FY93 (1)		FY95		FY97		FY99		FY01		FY03		FY05		FY07		FY09		FY11	
System Peak Demand (2)		1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
ADS Territorial Sale		3464	3538	3635	3735	3846	3938	4032	4126	4215	4301	4387	4477	4564	4650	4739	4833	4922	5012	5112	5210
AFS Contingent Sale		229	236	247	258	265	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369
Other Firm Sales		62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
Total Demand		3812	3899	4007	4118	4223	4321	4422	4526	4633	4742	4853	4967	5084	5204	5327	5453	5582	5713	5847	5984
Demand Reduction Components		FY93 (1)		FY95		FY97		FY99		FY01		FY03		FY05		FY07		FY09		FY11	
Existing Demand Side Mgmt (3)		67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
New Demand Side Management		26	61	97	133	171	209	243	262	289	309	334	358	377	401	425	452	476	499	524	544
Customer Owned Generation		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Total Demand Reductions		96	131	167	203	241	279	313	332	359	379	404	428	447	471	495	522	546	569	594	614
Supply Requirements Summary		FY93 (1)		FY95		FY97		FY99		FY01		FY03		FY05		FY07		FY09		FY11	
Net Demand		3716	3768	3840	3915	3982	4042	4109	4131	4118	4134	4145	4099	4167	4229	4294	4361	4426	4493	4568	4646
Reserve Requirement (4)		652	664	678	693	706	718	728	735	742	749	756	763	770	777	784	791	798	805	812	819
Total Supply Side Requirement		4368	4432	4518	4608	4688	4760	4837	4866	4853	4883	4904	4862	4937	5006	5078	5152	5224	5298	5380	5465
Supply Side Components		FY93		FY95		FY97		FY99		FY01		FY03		FY05		FY07		FY09		FY11	
Existing Resources		3958	3922	3922	3958	3958	3958	3951	3943	3935	3935	3935	3935	3935	3935	3935	3935	3935	3935	3935	3935
Firm Purchases		356	356	356	356	356	356	359	359	359	359	359	359	359	359	359	359	359	359	359	359
Contingent Purchases		132	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Total Existing Resources		4446	4369	4369	4405	4405	4405	4401	4393	4385	4385	4385	4385	4385	4385	4385	4385	4385	4385	4385	4385
Resource Additions		FY93		FY95		FY97		FY99		FY01		FY03		FY05		FY07		FY09		FY11	
Navajo Surplus (5)		150	350	350	350	350	350	345	339	334	334	334	334	334	334	334	334	334	334	334	334
Fuel Cell Early Production Unit																					
Diversity Exchange																					
Palo Verde Recapture																					
Advanced Gas-Fired Technology																					
Alternative/Renewable Resources																					
Peak Purchases																					
Total Resource Additions		0	150	350	350	350	350	335	347	341	336	338	351	356	436	458	536	611	687	764	926
Total Supply Side Resources		4446	4519	4719	4755	4755	4761	4747	4734	4721	4723	4736	4721	4821	4843	4921	4996	5072	5149	5211	5261
Reserve Summary		FY93		FY95		FY97		FY99		FY01		FY03		FY05		FY07		FY09		FY11	
Planned Reserves (MW) (6)		720	751	879	840	773	719	618	603	603	589	591	622	654	614	627	635	646	656	743	715
Over/Under (MW) (7)		78	88	201	147	67	0	53	15	17	0	0	29	50	0	2	0	0	0	75	2

Approved

Mark B. Brossall

Associate General Manager of Financial, Information &amp; Planning Services